

**International and Operational Law Department**  
The Judge Advocate General's School  
Charlottesville, VA

## **RULES OF ENGAGEMENT: DEVELOPMENT, TRAINING, INTEGRATION, AND SYNCHRONIZATION**

### **REFERENCES**

1. CJCSI 3121.01A, Standing Rules of Engagement for U.S. Forces, 15 January 2000.
2. CJCSI 3121.02 ,Rules on the Use of Force by DoD Personnel Providing Support to Law Enforcement Agencies Conducting Counterdrug Operations in the United States, 31 May 2000.
3. DoD Instruction 5100.77, DoD Law of War Program, 9 Dec 1998.
4. DoD Instruction 5210.56, Use of Deadly Force and the Carrying of Firearms by DoD Personnel Engaged in Law Enforcement and Security Duties, 25 February 1992.
5. Joint Publication 1-04, Joint Tactics, Techniques, and Procedures (JTTP) for Legal Support to Military Operations (30 June 1998), Draft Copy.
6. DEP'T OF ARMY, FIELD MANUAL 100-5, OPERATIONS (14 June 1993).
7. DEP'T OF ARMY, FIELD MANUAL 101-5, STAFF ORGANIZATION AND OPERATIONS (31 May 1997)
8. Mark S. Martins, Rules of Engagement for Land Forces: A Matter of Training, Not Lawyering, 143 MIL. L. REV. 3 (1994)
9. CENTER FOR ARMY LESSONS LEARNED, ROE TRAINING, Newsletter No. 96-6 (May 1996)
10. CENTER FOR ARMY LESSONS LEARNED, PEACE OPERATIONS TRAINING VIGNETTES, Newsletter No. 95-2 (Mar 1995)
11. XVIII AIRBORNE CORPS RAMP/RULES OF ENGAGEMENT TRAINING PACKAGE, AMEDMENT TO XVIII AIRBORNE CORPS AND FORT BRAGG REGULATION 350-41, TRAINING THE CORPS (Dec 1996)
12. Operational Law Handbook, The Judge Advocate General's School.
13. LTC Michael Kelly & MAJ Mark Phillips of the Australian Army, The Application of Live, Virtual and Constructive Simulation to Training for Operations Other Than War, Draft Copy

## **I. INTRODUCTION**

### **A. Objectives.**

1. Understand the purpose of having standing rules of engagement.
2. Become familiar with the structure of the Standing Rules of Engagement (SROE).
3. Understand self-defense from both a collective and unit perspective.

4. Recognize the need for training the Judge Advocate on the ROE and various methodologies for doing so.
5. Become familiar with "RAMP" and consider the necessity to train rather than teach ROE.
6. Consider the need to integrate and synchronize the Battlefield Operating Systems with regard to the ROE.

B. Agenda.

1. Purpose of ROE.
2. Standing Rules of Engagement for U.S. Forces (SROE).
3. Concept of self-defense.
4. Training the Judge Advocate.
5. Introduction to RAMP.
6. Training by Battlefield Operating System.
7. ROE training in the Future.

## II. PURPOSE OF ROE

- A. "Rules of Engagement—Directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called ROE." Joint Pub 1-02, *DoD Dictionary of Military and Associated Terms*.

B. Purpose:

1. Control of military operations by the Civilian and Military Chain of Command.

2. Implements the inherent right of self-defense.

### **III. STANDING RULES OF ENGAGEMENT FOR U.S. FORCES (SROE)**

- A. Purpose: “to provide implementation guidance on the application of force for mission accomplishment and the exercise of the inherent right and obligation of self-defense. In the absence of superseding guidance, the SROE establish fundamental policies and procedures governing the actions to be taken by U.S. force commanders in the event of military attack against the United States and during all military operations, contingencies, terrorist attacks, or prolonged conflicts outside the territorial jurisdiction of the United States.”
- B. Structure.
  1. Short covering instruction, with actual content in the Enclosures.
  2. Enclosure A: Standing Rules of Engagement for U.S. Forces. General, unclassified discussion of concepts and terms. It is “intended to be used as a coordination tool with U.S. allies for the development of combined or multinational ROE consistent with [the] ROE.”
  3. Numerous classified Enclosures, some with Appendices, treat the concepts discussed in the unclassified Enclosure A in greater depth, or deal with the ROE applicable to specific mission areas.
  4. Enclosure J: Supplemental Measures.
    - a. Includes an extensive listing of specific ROE measures that may be used as required for mission accomplishment.
    - b. Also includes message formats to be used in requesting and authorizing supplemental ROE, and examples.
  5. Enclosure K: Combatant Commander’s Theater-Specific ROE. When promulgated, includes additional guidance applicable within a Combatant Commander’s Area of Responsibility.

6. Enclosure L: Rules of Engagement Process. This Unclassified enclosure “provides guidelines for incorporating ROE development into the crisis action planning (CAP) and deliberate planning processes by commanders and staffs at all levels.” It also discusses the ROE Planning Cell. Such a cell is the responsibility of the J-3 (generally when engaged in CAP) or J-5 (generally when engaged in deliberate planning), with the assistance of the Staff Judge Advocate.
  7. Glossary. Contains useful definitions.
- C. Applicability. Guidance for U.S. forces:
1. In the event of military attack on the United States.
  2. During all military operations, contingencies, terrorist attacks, or prolonged conflicts outside the territorial jurisdiction of the United States, including Puerto Rico and the Northern Marianas, U.S. possessions, and U.S. territories.
  3. Exceptions:
    - a. When the SROE are superseded by higher guidance.
    - b. Multinational Force (MNF): if U.S. forces are assigned to the operational control of an MNF, they will comply with the MNF ROE if authorized by the National Command Authorities (NCA). The self-defense concepts discussed in the SROE will always be applicable.
    - c. Units under the operational control of the USCG apply portions of the USCG use of force doctrine. The self-defense concepts discussed in the SROE will always be applicable.

#### **IV. CONCEPT OF SELF DEFENSE**

- A. Self defense is treated generally in Enclosure A.

B. THESE RULES DO NOT LIMIT A COMMANDER'S INHERENT AUTHORITY AND OBLIGATION TO USE ALL NECESSARY MEANS AVAILABLE AND TO TAKE ALL APPROPRIATE ACTION IN SELF DEFENSE OF THE COMMANDER'S UNIT AND OTHER U.S. FORCES IN THE VICINITY.

C. Key concepts.

1. Self defense.

a. Unit self defense: Defense of a particular unit of U.S. forces, including elements or personnel thereof, and other U.S. forces in the vicinity, against a hostile act or hostile intent.

(1) Vicinity: generally, the reach of the available weapon systems.

(2) Individual self defense:

(a) A subset of unit self defense.

(b) Individual's right to defend himself and others on the vicinity.

(c) Commanders must ensure that individuals understand and are trained on when and how to use force in self defense.

(d) An individual's right of self-defense may be subject to appropriate superior orders.

b. National self defense: Defense of the U.S., U.S. forces, and in certain circumstances, U.S. citizens and their property, and U.S. commercial assets from hostile acts or hostile intent.

(1) Responsibility for HN national protection resides with the HN unless the HN unable or unwilling to do so.

(2) Collective self-defense: defense of designated non-U.S. forces, foreign nationals, and their property.

(a) Subset of National self defense.

(b) Authority to exercise collective self-defense retained by the NCA.

2. Necessity and Proportionality.

- a. The requirements of **necessity** and **proportionality** will be the basis for the judgment of the commander as to what constitutes an appropriate response to a particular hostile act or demonstration of hostile intent.
- b. The use of force is normally a measure of last resort. Attempts should be made to control the situation without the use of force.
- c. If force is necessary, the nature, duration and scope of the response should not exceed that required to decisively counter the hostile act or intent.
- d. Deadly force (attack to disable or destroy): authorized when such action is the only prudent means by which the hostile act or intent can be prevented or terminated.

3. Hostile Force: generic term applied to any force (civilian, paramilitary, or military) that has committed a hostile act or demonstrated hostile intent.

- a. Declared hostile force: once declared hostile by appropriate authority, U.S. forces need not observe a hostile act or demonstration of hostile intent before engaging. Basis of the engagement shifts from conduct to status.
- b. Hostile force can be engaged even where not involved in hostile activity. For example, unarmed troops in the mess hall behind their lines are a legitimate target if they have been declared hostile.

4. Hostile Act: an attack or use of force against U.S. forces. Also includes force used to impede or preclude the mission or duties of U.S. forces.
  - a. Hostile Intent: The threat of imminent use of force. Also includes the threat of force used to impede or preclude the mission or duties of U.S. forces. Hostile intent is fact-specific. Although there is guidance throughout the classified portions of the SROE pertaining to the factors that may constitute evidence of hostile intent in various situations, the ultimate decision rests with the commander against whom the potential hostile intent is being demonstrated.

## V. SUPPLEMENTAL MEASURES AND MISSION ACCOMPLISHMENT

- A. Supplemental measures are issued, as necessary, for mission accomplishment. In many cases, the base-line concepts established in the SROE are sufficient guidance to the operational commander, and supplemental measures will not be promulgated.
- B. Supplemental measures may **not** limit the inherent right and obligation of self defense. For example, assume that in a particular operation there is a supplemental measure restricting the use of crew-served weapons. The commander must observe this restriction while accomplishing the mission. However, if the commander needs to defend his unit (because his unit has become the object of either hostile intent or a hostile act), he may employ crew-served weapons if they are otherwise a necessary and proportional response.
- C. Supplemental measures may be requested by commanders at any level.
- D. Appendices to Enclosure J contain a list of standardized measures from which individual measures may be selected
  1. Lists are grouped by the authority (NCA, Combatant Commander, Subordinate Commanders) who may authorize the particular Measure.
  2. Those measure which are reserved to the NCA or Combatant Commander are generally restrictive in nature. That is, they relate to a action, operation, or weapon system that must be affirmatively approved for use before a field commander may execute or utilize them.

3. The remainder of the supplemental measure (those that may be approved by subordinate commanders) are permissive in nature. That is, a commander may utilize a particular tactic or weapon system unless he is told that he cannot do so. In some cases, a supplemental measure from this series may be used to authorize a particular tactic or weapon system when it is necessary to clarify its use, or to authorize something that had previously been restricted.
  4. Spares are included for novel measures.
  5. Supplemental measure numbers and text are unclassified when referenced separately, but are at least Confidential when the two are linked.
- E. ROE requests rise through the chain of command to the appropriate approval authority. Intermediate commanders may disapprove supplemental measure requests.
- F. ROE Message Formats.
1. Contained in Appendix F to Enclosure J.
  2. Messages are classified at least Confidential.
  3. All requests and approvals should be serialized by unit. This is especially important for JTF and higher headquarters which are promulgating/approving ROE. For example, a unit which received CINC ROE Approval Serial 005 should ensure that they are in possession of Approval Serials 001-004 (unless the latest message is a total restatement of all previously approved ROE).
  4. Requests for supplemental ROE should *always* include the justification for the request.

## **VI. TRAINING THE JUDGE ADVOCATE**

- A. "A soldier that just happens to be a lawyer."
- B. The Judge Advocate General's School.



1. Basic Course.
  2. Graduate Course.
  3. Continuing Legal Education.
    - a. Law of War Workshop.
    - b. Operations Law Seminar.
- C. Military Education.
1. CAS3.
  2. CGSC.
- D. In house training program.
1. Can be simple.
    - a. How to pack a ruck.
    - b. How to rig a parachute.
    - c. How to field strip a squad automatic weapon (SAW).
  2. Can be more involved.
    - a. Land Navigation.
    - b. Drafting a five-paragraph operations order.
    - c. Mission planning sequence.

- 3. "Leather personnel carriers."
- E. Field Training Exercises.
- F. The Center for Law and Military Operations.
  - 1. After action reports.
  - 2. Lotus Notes.
  - 3. Combat Training Centers.
    - a. One of, if not the most significant event in a commander's tour.
    - b. Commander needs a trained lawyer on his staff.
      - (1) Command and staff must learn to work with attorney.
      - (2) Legal observer controllers are part of the mix.

## VII. INTRODUCTION TO RAMP

- A. "A Matter of Training Not Lawyering." See generally, Mark S. Martins, *Rules of Engagement for Land Forces: A Matter of Training Not Lawyering*, 143 MIL L. REV. 3 (1994).
- B. The Legislative Model.
  - 1. Problems in creation.
    - a. Unrealistic assumption that leaders can create ROE the way legislators create law.
    - b. "Overpopulation." Rules undergo revision by as many as nine levels of command.

- c. Multiple ROE cards for same set of rules, inconsistency between units, "countless and changing shapes, colors, and flavors."
- d. Only constant, self-defense boilerplate.

## 2. Problems of interpretation.

- a. Unrealistic assumption that soldiers can interpret ROE the same way governments can interpret laws.

- b. No system of rules can ever eliminate all inappropriate uses or failures to use force.

### (1) Troops respond too timidly.

- (a) "Toss the willing firers out of an action and there can be no victory." S.L.A. MARSHALL, *MEN AGAINST FIRE: THE PROBLEM OF BATTLE COMMAND IN FUTURE WAR* 56-57 (1978).

- (b) Many infantrymen in World War II did not fire their weapons even when confronted by hostile enemy forces. *Id.*

### (2) Troops respond too aggressively.

- (a) "Don't one of you fire until you see the whites of their eyes." William Prescott at the Battle of Bunker Hill, June 17, 1775.

- (b) ROE is not a four-letter word.

### (3) Not a substitute for proper training in fire discipline.

## 3. Problems in Enforcement.

- a. Poor dissemination of the facts surrounding criminal allegations.

- b. Soldiers and media may believe that prosecution will follow every decision to fire.
    - c. Turns military doctrine into legal doctrine.
  - 4. Problems in Land Force Doctrine.
    - a. No real doctrine on training ROE.
    - b. Hard to train at the last minute.
  - 5. Neglect of Cognitive and Environmental Dimensions.
    - a. Harsh environment unlike civil society.
    - b. Often ROE briefed not trained.

C. Curative Approach.

- 1. Best prescription for improving decision making under stressful situations is training.
  - a. "Suspended agony."
  - b. Law Enforcement.
    - (1) Technology, role-play.
    - (2) Rules never change.
- 2. Adopt a training model of Land Force ROE.
  - a. Pass out rules far in advance of operation.
  - b. Key core concepts never change, predictability.

- (1) Flexibility through structure of alert conditions.
  - (2) Flexibility through supplements.
- 3. Internalized principles rather than external written texts.
  - a. Not like interpreting the tax code.
  - b. Decision time reduced.
- 4. No criminalization of violations of the rules except for those that go beyond a good faith interpretation.
- 5. Comprehensive system for organizing key principles.

#### D. RAMP

- 1. The source rules.
  - a. **Return** fire with aimed fire. Return force with force. You always have the right to repel hostile acts with necessary force.
  - b. **Anticipate** attack. Use force first if, but only if, you see clear indicators of hostile intent.
  - c. **Measure** the amount of force that you use, if time and circumstances permit. Use only the amount of force necessary to protect lives and accomplish the mission.
  - d. **Protect** with deadly force only human life, and property designated by your commander. Stop short of deadly force when protecting other property.
- 2. The RAMP rules are default settings based on the core functional areas of the SROE, self-defense, proportionality, and military necessity.

- a. Especially beneficial where the OPLAN/ORDER is received just hours before execution.
- b. In the event a soldier forgets the specific rules, application of RAMP will generally cause compliance with most specific ROE systems.
- c. A "key word" or "mnemonic device" to be used as a means of organizing the rules in memory for quick retrieval during stressful situations.

(1) SPORTS and the M-16, METT-T, SALUTE.

(2) Soldiers accustomed to the key word approach.

(3) Experts say assists in memorization and recollection.

3. Standards with which leaders can supervise "judgmental" type training.

4. Core set of rules which can be supplemented to fit the actual mission specific ROE.

- a. Anticipate attack, for example, could be supplemented to indicate that hostile intent is to be presumed where a crew served weapon is manned.
- b. **Protect property** could be supplemented to include using deadly force to protect weapons and ammunition.

E. ROE Alert Conditions (ROECON).

1. Ten functional types of ROE.

- a. Type I - Hostility Criteria.
- b. Type II - Scale of Force/Challenging Procedure.

- c. Type III - Protection of Property and Foreign Nationals.
  - d. Type IV - Weapons Control Status/Alert Conditions.
  - e. Type V - Arming Orders.
  - f. Type VI - Approval to Use Weapons Systems.
  - g. Type VII - Eyes on Target.
  - h. Type VIII - Territorial or Geographic Restraints.
  - i. Type IX - Restrictions on Manpower.
  - j. Type X - Restrictions on Point Targets and Means of Warfare.
- 2. RAMP embodies only the core rules, depicted in functional areas I through III.
  - 3. ROECON is a system whereby commanders may use all ten types of ROE in complex combined arms teams operations.
- F. ROECON's are established and incorporated in the tactical standing operating procedures (TACSOP).
- 1. ROECON GREEN.
    - a. Applies when no discernible threat of hostile activity exists.
    - b. Places forces in a routine security posture (SROE).
    - c. Involves minimal arming and protection of only the force and key facilities.
  - 2. ROECON AMBER.

- a. Applies when a discernible threat of hostile activity, but not justifying ROECON RED.
- b. Does not generally apply where higher headquarters has formally identified a hostile force.
- c. Provides for arming of additional key personnel, establishment of roadblocks or barriers, security patrols, and increased availability of ordinance.

3. ROECON RED.

- a. Applies when an actual attack on U.S. forces occurs, a threat of imminent attack exists, or higher headquarters has formally identified a hostile force in theater.
- b. Directs the force to continue the protection measures detailed in the lower ROECON's while arming all personnel and lowering the levels of approval authority on certain weapons systems.
- c. Provides specific hostility criteria.

4. May have preprinted ROE cards for each ROECON, organized in RAMP format.

G. Standard Formats for ROE annexes.

- 1. Each division prepares an ROE annex for every contingency plan that contributes to the unit's mission essential task list (METL).
- 2. Build on and reinforce RAMP and ROECON's.
- 3. Can "tailor" using preestablished ROECONS and RAMP.
  - a. Optional Measures.
  - b. Format rules to soldiers based on RAMP.



c. ROE Matrix.

(1) Chart used to indicate levels of authority required for use of particular weapons systems.

(2) Matrix may change with ROECON.

H. Other recommendations.

1. Keep the RAMP and ROECON's unclassified while classifying the ROECON level.

2. Mastery of RAMP should be a battle task.

a. A task which must be accomplished by a subordinate unit if the next higher is to accomplish its METL.

b. Command climate the key.

c. A critical individual task monitored and graded by NCO's.

3. Training Scenarios.

a. Experience is the best trainer.

b. Training is the answer for shortfalls in experience.

c. "It was stated time and time before us that when it comes to training on the ROE, briefings and lectures are insufficient. The training has to be ingrained and instinctive, so that the soldier is able to react." *Dishonoured Legacy: The Lessons of the Somalia Affair*, 2 Report of the Commission of Inquiry into the Deployment of Canadian Forces to Somalia, Minister of Public Works and Government Services Canada 616 (1997).

4. Scenarios can be found in articles, AAR's, and other sources.

- a. Can use scenarios in classroom, then move to individual testing and finally STX's for small units.
  - b. Build into FTX and CPX scenarios.
- 5. Thoroughly integrate RAMP in training.
  - a. Level I: Classroom training for leaders and soldiers by division operations lawyer. (Can be brigade judge advocate).
  - b. Level II: Individual common task training using RAMP. (Lawyer and legal NCO may draft task condition and standard, graded by unit personnel using check sheet).
  - c. Level III: Collective lane training by squad or platoon using RAMP. (Lawyer may draft scenario package, lane run by unit personnel. JAG may observe and offer suggestions or supply answers to the hard hypotheticals)
  - d. Level IV: Collective lane training by section, squad or platoon using RAMP supplemented by real world ROE. (Same as above).
  - e. Level V: Leader training using RAMP supplemented by real world mission-specific ROE. (Taught by Ops lawyer or brigade legal counsel).
- 6. RAMP rules are of no value without practice in an environment that simulates what the soldiers may face

#### I. Potential Concerns.

- 1. RAMP is not a substitute for ROE.
  - a. Training device for assisting soldiers to understand, remember and apply ROE in a stress filled environment.
  - b. RAMP is supplemented by ROE and presented to soldiers in RAMP format.

2. Too complicated?
3. Ignores nuances of specific units.
  - a. Not doctrine.
  - b. Develop own.
    - (1) ARMED.
    - (2) HAND SALUTE.
  - c. Combined and Joint Operations.

## **VIII. TRAINING BY BATTLEFIELD OPERATING SYSTEM**

- A. During the planning sequence, Battlefield Operating Systems (BOS) typically break off and plan their own part of the mission.
- B. Commander may have several non-organic support units assigned.
  1. Brigade Combined Arms Team may include non-direct support (DS) assets such as close air support (CAS), Army Aviation, Naval Gunfire (NGF), Corps Fire Support (FS) assets, Special Operations Forces (SOF), etc.
  2. The commander and staff may not be accustomed to working with these specialized "slice" units.
    - a. For example, Naval Gunfire has a very flat trajectory. Therefore, extremely accurate from a vertical standpoint but can over or undershoot a target. Danger close is 600 meters rather than the standard 400 meters.
    - b. Air Force CAS may have a set of criteria for determining hostile intent different than Army aviators.

- C. In a mid to high intensity conflict, the large weapons systems are likely to inflict the greatest casualties and friendly fire incidents.
  - 1. On the modern battlefield, all of the unit's intelligence and fire support assets are used to locate, box in, block or fix the enemy so that the enemy can be destroyed with as little direct contact as possible.
  - 2. While the rifleman will always remain the focus, especially in OOTW, he will likely inflict a far smaller percentage of casualties in mid to high intensity conflicts than in the past.
- D. A great deal of attention is spent on training the rifleman, but what about the BOS?
- E. There is arguably a need to "train" or to integrate and synchronize the application of the ROE by BOS.
  - 1. Integration is the idea that all separate systems should work together; they should be on the same set of music.
  - 2. The BOS elements should synchronize the execution of the plan. They should insure that the timing of the application of the use of force enables the commander to maximize his use of combat power through surprise and mass producing a synergistic effect.
  - 3. Practicing this in peacetime will facilitate real world execution.
- F. No current doctrine on how to integrate and synchronize ROE.
  - 1. Joint Pub. 1-04, *Joint Tactics, Techniques, and Procedures (JTTP) for Legal Support to Military Operations* (Draft Pub) introduces the concept of an ROE planning cell in the joint task force (JTF) environment.
    - a. At the JTF level, integrates key staff members during the planning phase, focusing on the impact of the ROE. Does not include all BOS.

- b. Does not address integration and synchronization during the execution phases.
- 2. Consider creating an ROE planning cell at all levels of command.
  - a. Include all BOS elements.
  - b. Prior to mission execution, hold ROE integration and synchronization meetings.
    - (1) How will each BOS determine hostile intent? On the modern battlefield where enemy forces can be located beyond the capabilities of the human eye, what factors are going to be used?
    - (2) What types of optics will be used? During JUST CAUSE in Panama, an AC 130 unintentionally fired on U.S. ground forces. The soldiers had GLINT tape on their helmets. However, as the smoke of battle intensified, the AC 130 switched from infrared (IR) to thermal sights making it impossible to determine friend from foe.
    - (3) What type of munitions will be employed? If aviation assets are taking out an insurgent command and control bunker in a small village and there is a Special Forces team near by with eyes on target, could the bunker be taken out with a hellfire missile rather than aerial bomb in order to reduce the odds of fratricide and collateral damage?
    - (4) How is eyes on target interpreted? Satellite? Counter battery radar, Q36, Q37?

G. Situation Awareness.

- 1. Commander relies on the staff to keep him apprised of what is actually happening on the battlefield.
- 2. Judge Advocate can and should assist with situation awareness.

- a. During operations, JAG is the person most likely to have time to act as an additional set of eyes.
  - (1) Is the engineer overlay accurate?
  - (2) Has the maneuver BOS been adequately informed as to where the family of scatterable mines (FASCAM) has been placed before he begins offensive operations?
    - (a) Tube launched, delivered by aircraft or vehicle.
    - (b) Unmarked minefields.
    - (c) Dud factor.
  - (3) Does the fire support BOS know where SOF special reconnaissance (SR) teams are located?
  - (4) After offensive operations, has the G5 checked the overlay to determine where the unmarked FASCAM minefields are located?
- b. Assist the battle captain in logging and posting message traffic.

## IX. ROE TRAINING IN THE FUTURE

- A. Standardized v. Ad Hoc Training.
  - 1. "Training in the law of armed conflict is of critical importance to effective peacekeeping: it cannot continue to be provided in an ad hoc manner. A clear responsibility center must ensure that sufficient and effective training is conducted throughout the Canadian Forces." LTG J. Dangerfield, P. LaRose-Edwards & R. Weeks, *Non-Traditional Military Training for Canadian Peacekeepers*. Minister of Public Works and Government Services Canada 73 (1997).
  - 2. "Ad Hoc supplements embedded training."

- B. Lane training realism limited by logistic, financial, environmental and coordination factors.
1. Environmental, psychological and physical limitations are also benefits justifying live training.
  2. Difficult to set up if last minute training required.
- C. "Virtual" and "Constructive" computer simulations may be a valuable supplement to live training by adding another level of realism. LTC Michael Kelly & MAJ Mark Phillips, *The Application of Live, Virtual and Constructive Simulation to Training for Operations Other Than War*, Draft.
1. Purpose still to provide experiential rather than intellectual model.
  2. Cannot recreate the stench and noise of the real world, but may be able to raise the level of stress through sensory overload.
  3. Numerous permutations off single scenario.
    - a. Different languages.
    - b. Various environmental aspects, day v. night.
    - c. Pulls out a wallet, then pulls out a gun.
  4. Can be individual, squad or platoon sized.
  5. Experiential sensory level for the soldier, command and control environment for the commander/BOS.
  6. If there is a centralized method of training, satellite-training centers could be linked to a central hub.
  7. Permits "distance learning."

## **X. CONCLUSION**